

Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

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Cabana: We're ready for future work assignments

To move forward, you have to take steps . . . some big, some small, some leaps and bounds. NASA Administrator Charlie Bolden and Deputy Administrator Lori Garver, along with center directors and program managers, recently took their first steps toward a new direction for America's space agency.

Pending congressional approval, NASA will create new program offices that include activities in exploration technology and development, heavy-lift rockets and rocket propulsion technology, exploration precursor robotic missions, human research and commercial spaceflight opportunities.

"I think this is where



NASA

Center Director Bob Cabana addresses workers in the Training Auditorium for an All-Hands Meeting on April 9. Cabana answered questions and discussed the current activities at Kennedy, including the center's next steps in implementing the new exploration strategy outlined in the Fiscal Year 2011 budget proposal.

we want to be as a space center. We want to be able to do it all. We want to be the nation's premier launch complex for whatever the future brings," said Center Director Bob Cabana during an All-Hands Meeting on April 9. "Now that we've got the center assignments, we've gone from having one program (NASA's Launch Services Program) to having three."

The first new program will be a Commercial Crew

Development Program Office, in partnership with a deputy program manager office at NASA's Johnson Space Center in Houston. The office will manage \$500 million in Fiscal Year 2011 and \$5.8 billion throughout five years to foster private-sector transportation services to Earth orbit.

"When you consider all that's required to stand up a new program, especially a new commercial program like this that's actually de-

signed to launch humans to space, and what that entails and what it takes, that's a pretty tall order," Cabana said. "To have that entrusted to us says a lot. So, now that we've actually gotten it here, we've got to stand up and deliver.

"We're going to have to work very closely with the Johnson Space Center. I see them as working on the crew vehicle and the crew aspect of it," Cabana said. "But the program is going

to be here. We're going to integrate the whole thing, we're going to be procuring the rockets, we're going to be doing the launching."

The second new program will transform Kennedy into a 21st Century Launch Complex.

To do so, the center will manage \$429 million in FY 2011 and \$1.9 billion throughout five years to modernize all of

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More online

For more details on the NASA center work assignments and more information about the agency's Fiscal Year 2011 budget, visit: www.nasa.gov/budget

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Solar farms at Kennedy generating power to homes

By Linda Herridge
Spaceport News

Clean energy has arrived as Florida Power & Light's new Space Coast Next Generation Solar Energy Center at Kennedy now is supplying power to Florida households.

Center Director Bob Cabana joined FPL President and CEO Armando Olivera to officially commission the solar energy center April 8. The energy center is the result of a public-private partnership between NASA and FPL.

"NASA is a pioneer in the use of solar power for space exploration, so it's fitting that we're working with FPL to expand the use of that renewable energy source at Kennedy, where many of those missions were launched," Cabana said.

"This type of commercial partnership with NASA helps provide Florida residents, and America's space program, with new sources of green power that reduce our reliance on fossil fuels and improve the environment."

Olivera said that like NASA, FPL is looking beyond the horizon.

"Nearly 50 years ago, NASA's Kennedy Space Center was born of a dream to enable humankind to explore the mysteries of space. Today, we gather on the same ground to celebrate the birth of a new dream: a clean energy future for Florida built on renewable energy from the sun," Olivera said.

"FPL's Space Coast Next Generation Solar Energy Center is an important part of our state's clean-energy future, but large-scale solar projects like this one

also have a very positive impact on the economy today," Olivera added.

The new solar photovoltaic power facility was designed and built by SunPower Corp., using panels that are the most efficient available. The 35,000 solar panel facility, occupying 60 acres on NASA property at Kennedy, is producing 10 megawatts of clean, emissions-free power, which is enough energy to serve about 1,100 homes.

The solar facility is expected to reduce carbon dioxide emissions by more than 227,000 tons throughout the life of the project, which is equivalent to removing 1,800 cars from the road each year, according to the U.S. Environmental Protection Agency.

U.S. Rep. Suzanne Kosmas said that Florida



NASA/Jim Grossmann

Armando Olivera, Florida Power & Light president and CEO hands a pen to Center Director Bob Cabana after signing a certificate officially commissioning the newly constructed solar power facility at Kennedy. Looking on are U.S. Rep. Suzanne Kosmas of Florida, left, and Eric Draper, Audubon Society.

is poised to be a leader in America's growing clean-energy economy, which naturally includes solar power.

"This joint effort between NASA and FPL is an example of how we can create jobs while investing in common-sense solutions

to the economic, environmental and national security challenges we face today," Kosmas said.

Olivera said when combined with the other solar plants that FPL is building, it will make Florida No. 2 in the nation for solar power.

SLF to go down in history as a story to be told

By Linda Herridge
Spaceport News

A few days before Discovery and its seven-member STS-131 crew glide to a safe landing at Kennedy's Shuttle Landing Facility, or SLF, efforts will begin to record the facility for historical purposes.

Kennedy's Center Operations Directorate will lead the efforts to properly document and photograph the SLF runway, where NASA's fleet of space shuttles has landed 72 times since 1984. The Landing Aids Control Building and Mate-Demate Device also will be recorded.

According to Barbara Naylor, Kennedy's historic preservation officer, an earlier survey of facilities determined that the SLF, as well as other Kennedy sites, were eligible for listing on the National Register of Historic Places, or NRHP.

"We began this historical recordation process about three years ago," Naylor said. "Kennedy is being



NASA

An independent documentation team prepares to record Kennedy's Launch Complex 39A. From left, are Architectural Historian Trish Slovinac with Archaeological Consultants Inc., her assistant Nigel Rudolph, and photographer Penny Rogo Bailes.

proactive in completing the historical documentation on all of the facilities listed and eligible on the NRHP so that this information will be available for the public and completed for NASA to support future projects."

Naylor said the documentation must meet Secretary of the Interior Standards to be accepted into the Library of Congress' Historic American Buildings Survey and Historic American Engineering Record archival collections. Proper documentation includes a written history

of the facility, black-and-white large format archival quality photographs, negatives, and as-built drawings or schematics.

The photo effort is completed by using a special camera that takes 4-by-5 film and the prints are processed on archival quality paper that lasts for more than 100 years, Naylor said.

Kennedy's Medical and Environmental Support Contractor, Innovative Health Applications LLC, will manage the effort. Shannah Trout, the cultural resource specialist with IHA, said the company will bring in an architectural historian to accompany the independent photographer during the documentation.

"The historian helps to determine the best exterior and interior views, angles, and close-up photos," Trout said. "It's also important to document any special equipment key to the historic significance of the facility."

Kennedy completed the documentation of the crawler-transporter,

mobile launcher platform, Launch Pad 39A, Vehicle Assembly Building, Launch Control Center, Operations and Checkout Building high bay, Thermal Protection System Facility, and Rotation, Processing and Surge Facility. The Canister Rotation Facility and payload canister also will be completed this year.

Naylor said other assets being considered for the agency's Space Transportation System historical documentation include the orbiters, solid rocket boosters, external fuel tank, space shuttle main engines and the shuttle carrier aircraft being lead by NASA's Johnson Space Center in Houston.

As of presstime, Discovery was scheduled to land April 19 at 8:53 a.m. EDT, bringing home Commander Alan Poindexter, Pilot James P. Dutton Jr., and Mission Specialists Rick Mastracchio, Clayton Anderson, Dorothy Metcalf-Lindenburger, Stephanie Wilson, and Japan Aerospace Exploration Agency astronaut Naoko Yamazaki.

Kennedy team earns NASA's small business award

The Kennedy team has a lot to be proud of and it recently added another accomplishment to its list: winner of the NASA Small Business Administrator's Cup Award for Fiscal Year 2009.

On April 5, NASA Administrator Charlie Bolden and Office of Small Business Programs Associate Administrator Glenn Delgado presented the cup to Center Director Bob Cabana, Small Business Specialist Larry Third and Procurement Office Director Dudley Cannon.

"The NASA Office of Small Business Programs is extremely proud to present the 2009 Administrator's Cup Award to the Kennedy Space Center and to recognize the center's small business program, which consistently develops and implements innovative practices in support of the agency's small business initiatives," Delgado said.

VIPs who attended the event in the Operations and Checkout Building's mission briefing room included NASA Associate Administrator Christopher Scolese; Joseph Jordan, Small Business Administration associate administrator of Government Contracting and Business Development; Mitchell Morand, Area III director of the Small Business Administration's Office of Government Contracting; and



NASA/Jim Grossmann

From left, are Glenn Delgado, associate administrator of NASA's Office of Small Business Programs; NASA Administrator Charlie Bolden; Larry Third, Kennedy small business specialist; Center Director Bob Cabana; and Kennedy Procurement Office Director Dudley Cannon.

Walter Wallace, SBA Procurement Center representative for Kennedy. Kennedy senior staff members, procurement personnel, prime contractors and Central Industry Assistance Office staff also attended.

"A special thanks goes out to the entire KSC team for making the small business program what it is today. With the team's continued support, I feel confident that the KSC small business program will become even stronger, which in turn, will make the agency program even stronger," Third said.

The purpose of the award is to

honor the significant contributions that a NASA center has made to the agency's small business program. The award recognizes successful and innovative practices that promote small business participation in the initiatives that NASA undertakes. The innovative practices that helped Kennedy receive this award include:

- Restructuring the Joint Base Operations Support Contract, resulting in four additional awards to small business firms. These four awards alone contribute in excess of \$100 million annually toward the

center's small business goals.

- Joint Counseling -- A place where vendors are able to talk with representatives from Kennedy and its major prime contractors under one roof without having to be cleared and badged into Kennedy's secured areas. The goal of joint counseling is to provide private industry the maximum opportunity to do business with Kennedy and to present the ultimate team image. Kennedy is the first in the agency to offer joint counseling, and it now is being implemented across the agency.

- Kennedy Prime Contractor Board -- Kennedy and its prime contractors are committed to increasing competition in contracting, enhancing socioeconomic programs and providing private industry the maximum opportunity to do business at the center. In order to demonstrate this commitment, Kennedy and its prime contractors joined forces to create a forum, offering "One Face to Industry." From that, the Kennedy Prime Contractor Board was formed.

The NASA Small Business Administrator's Cup recognizes the NASA center that has the best overall small business program annually and is sponsored by the NASA Office of Small Business Programs.

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Kennedy's facilities.

"The goal is to augment NASA's current and future operations to achieve safe, increased operational efficiency and reduce launch cost for all customers," said Garver during a media briefing April 8. "We also want to facilitate multiple launches of different types of vehicles from different companies carrying both humans and cargo in a timely fashion."

"It's a pretty comprehensive package that really sets us up to have really a responsive and forward-looking range to go launch

the kind of missions we expect to in the future as well as support a whole variety of test missions," said Bill Gerstenmaier, associate administrator of NASA's Space Operations Mission Directorate.

Kennedy also will house a Flagship Technology Demonstrations Deputy Program Manager Office, responsible for \$424 million in FY 2011 and \$6 billion throughout five years to demonstrate transformational technologies for next-generation spaceflight capabilities.

The Space Shuttle Program will receive an additional three months' worth of funding, or \$600 million,

to process and launch all remaining shuttle payloads and vehicles bound for the International Space Station. Wrapping up construction of the orbiting outpost will allow crews to devote their time to science and research.

Other projects and programs will include payload processing, improving the range, environmental remediation, education, heavy-lift technology, and research and development. The Launch Services Program will continue launching expendable launch vehicles, and will likely receive more work with the proposed robotics precursor missions.

"I want to capture what LSP has done as part of our

commercial crew effort," Cabana said. "This new commercial crew (program), it can't be just like LSP, but it can't be like the space shuttle either. It's got to be somewhere in the middle. LSP has some definite expertise that we want to capture."

Steps to follow include congressional approval and then selection of leadership teams, some of which have already been assigned at Kennedy. Those teams will then work with contractors to determine how many people it will take to support the programs and perform the work.

"Now the hard part begins," Cabana said. "As

far as I'm concerned, the hardest job you can have is standing up a brand new program, getting the budgets in place, getting the right people on the job, finding what it is you need to go do and implementing it."

NASA leaders have expressed their confidence in Kennedy and all the field centers to take on these new tasks.

Bolden said, "I want to thank all of our NASA work force, both contractor and civil servant, for its commitment to this agency, its hard work, and its sacrifices. NASA's future is bright, thanks to your creativity and belief in the future."

Scenes Around Kennedy Space Center



NASA/Jim Grossmann

Inside a laboratory in the Space Station Processing Facility, a Japan Aerospace Exploration Agency scientist prepares a sample for the Biological Effects of Space Radiation and Microgravity on Mammalian Cells, or NeuroRad, lab experiment. The experiment is one of several biology and biotechnology, human research, physical, materials science and technology experiments that flew aboard space shuttle Discovery's STS-131 mission to the International Space Station.



NASA/Jack Pfaller

Hundreds of space enthusiasts attended the Space Coast Yuri's Night on April 10. The National Space Society, along with other local companies and groups, sponsored the event at the Astronaut Hall of Fame in Titusville, Fla. The event included exhibits and attractions, live entertainment, a DJ, special guest speakers, astronaut training simulators, a full-scale shuttle cockpit, grand prize giveaways.



NASA/Jack Pfaller

Shuttle Atlantis moves from its processing hangar to the Vehicle Assembly Building on April 13. The shuttle began its move at 7:20 a.m., took a pause for a photo opportunity with center employees, and arrived at 11:02 a.m. Inside the VAB, Atlantis will be attached to its solid rocket boosters and external tank for the STS-132 mission to the International Space Station targeted for May 14.



NASA/Gianni Woods

The KSC CyberCafé opened April 13 in Headquarters, Room 1242. The goal of the café is to develop a welcoming and productive area with coffee and gourmet snacks available to purchase, comfortable seating, and working surfaces for employees to congregate and use the facility's wireless internet 24 hours a day. It will provide a place to prepare pre-briefs and follow-ups, as well as a break area.



NASA/Jim Grossmann

In Launch Complex 39, steel roof trusses have been installed in the administrative building of the Propellants North Administrative and Maintenance Facility. The facility is striving to qualify for the U.S. Green Building Council's Leadership in Energy and Environmental Design, or LEED, Platinum certification. If successful, it will be the first Kennedy facility to achieve this highest of LEED ratings after it is completed in December 2010.



NASA/Jim Grossmann

Janette Martin, left, is presented with a check for \$1,444 by Center Director Bob Cabana for the Launching-A-Cure team that will participate in the American Cancer Society's Relay for Life in Rockledge on April 17. The funds came from donations raised during the KSC All-American Picnic's Chili Cook-off. As winners of the Chili Cook-off's People's Choice Contest, Dawn Meyer, right, and Jennifer Tharpe, second from right, were able to select the charity of their choice for the donation.



NASA

A group of midshipmen stopped by Kennedy in March to familiarize themselves with the operations of the center. From left, are Galvin Moore, Ian Eisenhauer, Sean Derek Freitas and Patrick Abbott, who someday hope to become astronauts.



NASA/Gianni Woods

CDC events thrill the kids

A NASA helicopter made a stop March 26 at Kennedy's Child Development Center during Transportation Week, March 22-26, and a very large bunny took photos and played with the youngsters April 2.



NASA/Jack Pfaller

NASA, nature partner for Earth Day beach cleanup



NASA/ Troy Cryder

Volunteers from the Kennedy work force descended on the center's beaches April 9 to spend several hours scouring the sand for items that had washed ashore.

By Cheryl Mansfield
Spaceport News

At the place where NASA spacecraft begin their journey, Earth Day activities bring the focus a little closer to home along the pristine beaches that line Kennedy.

Thirty-six-year Kennedy employee Maggie Forbes, an environment protection specialist, said, "We decided to do something different this year to support the 40th anniversary of Earth Day."

On April 9, buses of volunteers from the Kennedy work force descended on the center's beaches to spend several hours scouring the sand for items that had washed ashore, collecting, collecting two truckloads of wood, 270 pounds of recyclables and 200 bags of trash.

As in other beach cleanups, the volunteers were likely to find a cornucopia of stray items, anything from trash tossed overboard by cruise passengers to messages in bottles launched from faraway places. All the collected debris was retrieved and properly disposed of by the program, with much of it being recyclable. Unlike what might be found along a public beach, all of the debris that litters Kennedy's restricted beaches washes up from items discarded at sea.

While unsightly, the trash also can disturb a

sensitive nesting ground for several types of sea turtles. With the space center beaches part of the No. 1 nesting area in the Western Hemisphere for loggerhead sea turtles, the cleanup had to be carefully planned in advance of the beginning of their nesting season.

Sea turtle biologist Shanon Gann, a contractor with Innovative Health Applications, sees it as an ongoing effort. "It's definitely important that we are good stewards of this land, even if tomorrow all this trash comes right back. We can't control what Mother Nature brings us, so we go back out and clean it up again."

While an event like Earth Day can bring extra emphasis and awareness to the thousands of workers at the center, it is just part of the ongoing efforts that continue throughout the year.

"We have quite a large program out here -- larger than any of the (NASA) centers," said Kimberly Finch of Kennedy's environmental management office. "We have 140,000 acres and most of it is wildlife refuge. In everything we do out here, we consider the environmental requirements and impacts, for any kind of activity, from small to large."

In the end, the success of the cleanup can't be measured just by the debris collected, but also by the heightened awareness.

Astronauts celebrate 100 days on ISS with phone call

Sitting by the phone, waiting for a call just doesn't seem to happen anymore.

That is, unless you are waiting for a call from the International Space Station. And that's what several hundred people were doing as they gathered April 2 to share in a toast with U.S. astronaut T.J. Creamer, and Japan Aerospace Exploration Agency astronaut Soichi Noguchi, and cosmonaut Oleg Kotov to celebrate 100 days on the station.

Center Director Bob Cabana and astronaut Bobby Satcher led the event at Milliken's Reef restaurant at Port Canaveral, Fla., which hosted its first space-to-ground phone call in July 2009.

After opening statements by Cabana and Satcher, workers and their families and friends lined up to ask the trio in an orbit some 220 miles above Earth questions about their experiences and work in space.

Contact was made with the crew at about 5 p.m., with Creamer greeting Cabana. Soon after,

Kotov shared a brief discussion with Mikhail Kashitsyn, deputy technical manager and head of the Mini-Research Module-1 prelaunch processing for RSC Energia. Their conversation, of course, was in Russian.

Randall Crosby, with the Florida Division of Blind Services and best known as the owner of Crosby Snacks at Headquarters, took the phone next.

"If you ever consider having a need for café on the space station, I'd love to do business up there," Crosby said as the crowd roared in support.

Creamer answered: "As for a café in space, we all are simply drooling at the thought of fresh coffee."

Embry Riddle student Sasha Wetmore asked: "What kind of education has helped you the most in your career?"

Creamer answered: "The pinnacle fields have helped us get where we are, but learning to become the best team member really

has helped us most."

Other questions and answer included:

Question: How often do astronauts get to speak with their families and what's the loneliest thing about being in space?

Answer: We frequently e-mail with our families and the station really is a busy place, so no one is ever lonely.

Q: Did you do anything to celebrate your 100 days in space?

A: We did sit around the dinner table and discuss the best things that have happened to us . . . we shared joy of being able to do this together.

Q: Do you guys text in space?

A: We can't get text message, but we do Tweet from up here.

Q: Were you nervous when you first went to space?

A: The first time we were really excited, not really nervous.

Q: Where do you sleep and how do you sleep?

A: We sleep in a compartment about the size of a closet because we don't need to lie down.



NASA

A girl talks to astronauts Mike Barratt and Koichi Wakata, and cosmonaut Gennady Padalka as they celebrate 100 days on the International Space Station. Astronaut Bobby Satcher, who flew on the STS-129 mission, looks on during the space-to-ground phone call from Milliken's Reef in Port Canaveral, Fla., on April 2.

Greetings were recorded from guests to the crew and are scheduled to be sent up at a later date. The overall goal of the event was to promote human spaceflight awareness.

Remembering Our Heritage

Apollo 13 put problem solving to the test

By Kay Grinter
Reference Librarian

It was the "Age of Aquarius" at NASA 40 years ago when Apollo 13 launched April 11, 1970, with Commander James Lovell, lunar module pilot Fred Haise and command module pilot John Swigert aboard. Swigert replaced Thomas Mattingly in the final week before flight after Mattingly was exposed to the measles.

Their destination was the Fra Mauro highlands region of the moon. However, the rupture of an oxygen tank on the service module April 13 required that the lunar landing attempt be aborted. Engineers worked round-the-clock to formulate a plan to save



NASA file/1969

On Oct. 29, 1969, the Apollo 13 crew practices deploying the Apollo Lunar Surface Experiments Package, or ALSEP, which they planned to leave behind on the moon. Astronaut James Lovell, commander, left, discusses the project with astronauts Charles Duke, Fred Haise, John Young and an unidentified worker.

the crew. Fortunately, the lunar module Aquarius was undamaged, and the crew was able to use it as their command post and living quarters for the remainder of the flight.

The lunar module descent engine provided the propulsion necessary to adjust the flight path and the spacecraft ventured around the moon on a free-return trajectory for re-entry.

On April 17, about 143 hours after liftoff, the crew splashed down in the Pacific Ocean. The astronauts and spacecraft were recovered safely by the crew aboard the U.S.S. Iwo Jima.

On May 4, 1970, the Apollo 13 crew returned to Kennedy to give spaceport workers a "well done." An estimated 7,500 employees thronged to the north end of the Vehicle Assembly Building transfer aisle to give the crew a standing ovation, with others observing from the building's upper decks.

"It seems a lot longer than three weeks since we left here," Haise said, addressing the crowd. "All at once it became apparent that our very survival depended on how our remaining hardware was going to work.

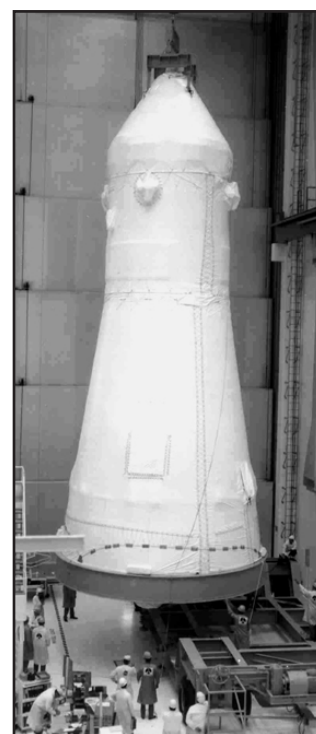
"The LM didn't miss a beat," he said, "and when we reactivated the dormant command module we made the most accurate re-entry of the Apollo Program. We know that behind all this hardware there are an awful lot of people.

"I want to fly again," he added. "I'd be anxious to climb aboard any kind of machinery on which you people have worked."

WORD ON THE STREET

"It's been 40 years since Apollo 13 went on its mission. There have been many movies made about space, including Apollo 13. What is your favorite space movie?"

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NASA file/1969

The Apollo 13 spacecraft is moved to a transporter in the Manned Spacecraft Operations Building on Dec. 10, 1969, for its trip to the Vehicle Assembly Building.



NASA file/1969

The S-II stage for Apollo 13's Saturn V rocket is unloaded from a barge at the Launch Complex 39 turn basin on June 30, 1969.

Kennedy celebrates Apollo 13 mission with festivities



The Kennedy Space Center Visitor Complex recently commemorated the 40th anniversary of Apollo 13 with special events.

Apollo 13 back-up lunar module pilot and Apollo 16 moonwalker Charlie Duke, left photo, signed books and posed for photographs.

Apollo 13 Commander Jim Lovell, far right, and lunar module pilot Fred Haise hosted a special Astronaut Encounter that was standing-room-only. The Visitor Complex also hosted a breakfast with the astronauts that sold out.



Tharpe to receive Debus Award on April 17

Roy Tharpe, president of Space Gateway Support, has been selected by the National Space Club Florida Committee to receive its 2010 Dr. Kurt H. Debus Award at a dinner April 17. The formal event, which begins at 6:30 p.m., will be at the Debus Conference Facility at the Kennedy Space Center Visitor Complex. For more information, contact LaDonna Neterer at 321-383-6135 or LaDonna.J.Neterer@boeing.com.

What are folks saying on facebook?

"Watching a launch is one of the greatest things in my life!! It's a beautiful sight, a fantastic experience, unbelievable achievement and an awesome piece of work that lies behind it! All the way from Greenland/Denmark: NASA KSC rocks!"

Join Kennedy on Facebook at: www.facebook.com/NASAKennedy
or on Twitter at: www.twitter.com/NASAKennedy

Upcoming events . . .

- | | |
|----------|---|
| April 27 | From Zero to Breakthrough! Guest speaker Vernice Armour
10 to 11:30 a.m. Training Auditorium |
| April 27 | 2010 KSC Annual Walk/Run, 5 p.m. Shuttle Landing Facility |
| March 6 | Kennedy All-American Picnic, 10 a.m. to 4 p.m. EDT; KARS 1 Park.
Tickets go on sale Feb. 17; \$8 for adults, \$6 for children ages 3-12. |

Looking up and ahead . . .

- | | |
|----------------------------------|---|
| Planned for April 19 | Landing/KSC: Discovery, STS-131; 8:53 a.m. EDT |
| Targeted for April 20 | Launch/CCAFS: Atlas V, OTV; TBD |
| Targeted for May 8 | Launch/CCAFS: Falcon 9/Dragon; Window 11 a.m. to 3 p.m. EDT |
| Targeted for May 14 | Launch/KSC: Atlantis, STS-132; 2:19 p.m. EDT |
| May 20 | Launch/CCAFS: Delta IV, GPS IIF-1; 11:29 to 11:48 p.m. EDT |
| No earlier than July 21 | Launch/CCAFS: Falcon 9/Dragon C1, NASA COTS - Demo 1; TBD |
| Targeted for July 29 | Launch/KSC: Endeavour, STS-134; 7:51 a.m. EDT |
| Targeted for July 30 | Launch/CCAFS: Atlas V, AEHF 1; 4:52 to 6:52 a.m. EDT |
| Targeted for Sept. 16 | Launch/KSC: Discovery, STS-133; 11:57 a.m. EDT |
| Targeted for Nov. 11 | Launch/CCAFS: Falcon 9/Dragon C2; TBD |
| Targeted for Nov. 17 | Launch/CCAFS: Atlas V, GPS IIF-2; TBD |
| Nov. 22 | Launch/VAFB: Taurus, Glory; TBD |
| Targeted for Jan. 22, 2011 | Launch/CCAFS: Atlas V, SBIRS GEO-1; TBD |
| Aug. 5, 2011 | Launch/CCAFS: Atlas V, Juno; TBD |
| Aug. 15, 2011 | Launch/Reagan Test Site: Pegasus, NuSTAR; TBD |
| Sept. 8, 2011 | Launch/CCAFS: Delta II Heavy, GRAIL; TBD |
| To Be Determined | Launch/VAFB: Delta II, Aquarius / SAC-D Satellite; TBD |
| To Be Determined | Launch/VAFS: Delta II, NPP; TBD |
| No Earlier Than
Oct. 14, 2011 | Launch/CCAFS: Atlas V, Mars Science Laboratory; TBD |

WORD ON THE STREET

It's been 40 years since Apollo 13 went on its mission. There have been many movies made about space, including Apollo 13. What is your favorite space movie?



"Space Cowboys. It's a really good movie with a good storyline and I really like Clint Eastwood."

Lisa Hokett,
with United Space Alliance

"Apollo 13. I just watched a documentary on it last night. I like the movie because it was based on just the facts."

Mike Skirko,
with EG&G



"Armageddon. I really like the soundtrack a lot but it also was very adventurous."

Sandy Eliason,
with NASA

"Contact. It showed KSC. It was a really good movie and it even made you think."

Albert Studt,
with URS Corp.



"Apollo 13. I really liked the 'Houston, we have a problem' line . . . and of course, I like Tom Hanks."

Alanna Keyser,
with Division of Blind Services



John F. Kennedy Space Center

Spaceport News

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